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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,004	01/20/2004	Tai-Chun Huang	TS03-484	1655
42717	7590	02/08/2006	EXAMINER	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			DANG, TRUNG Q	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

JK

<b>Office Action Summary</b>	<b>Application No.</b> 10/761,004	<b>Applicant(s)</b> HUANG ET AL.	
	<b>Examiner</b> Trung Dang	<b>Art Unit</b> 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-19 is/are allowed.
- 6) ☒ Claim(s) 20-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fu of record in view of the admitted prior art (APA).

With reference to Fig. 5, Fu teaches an integrated circuit device comprising:  
a semiconductor substrate (such as die 61, 62) containing an electronic circuit wherein said semiconductor substrate has a non-rectangular perimeter.

Fu differs from the claims in not disclosing that after a die of Fig. 5 are singulated along the scribe lines, the die is fixably mounted to a package and then coupling signal pins of said package to signals in the die.

The admitted prior art of Fig. 4 teaches singulated die 38 is fixably mounted to a package 42 and then coupling signal pins 46 of said package to signals in the die through wire 54.

It would have been obvious to one of ordinary skill in the art to modify Fu's teaching by mounting and wire connecting the singulated die in the manner suggested by the admitted prior art because such practice is widely known in the manufacture of semiconductor chip. As for the claimed limitation regarding the die is singulated by

performing a single continuous cut around more than one side of the perimeter of the substrate at a time, applicants are reminded that a "product by process" claim is directed to the product per se, no matter how actually made. In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685, In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Thorpe, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in a "product by process" claims or not. Note that applicants have the burden of proof in such cases, as the above caselaw makes clear.

3. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fu taken with the APA as applied to claims 20-25 above, and further in view of either Arai (US 6,528,864), Weeks et al. (US 2004/0130002), or Sanaka et al. (US 6,579,745).

This rejection is made with respect to the die having L-shape, H-shape, or T-shape.

The combination of Fu and the APA teaches an integrated circuit device as noted above. The combination differs from the claim in not disclosing that the die has a L-shape, H-shape, or T-shape as claimed.

Aria, Weeks, Sanaka each respectively teaches a conventional die may have any shape including L-shape (Aria, Fig. 3), H-shape (Weeks, Fig. 23K), and T-shape (Sanaka, col.3, line 58).

It would have been obvious to one of ordinary skill in the art to modify the combined teaching of Fu and the APA by making the die having having L-shape, H-shape, or T-shape as suggested by Aria, Weeks and Sanaka because such shapes of the die are widely used in the manufacture of semiconductor chip.

***Allowable Subject Matter***

4. Claims 1-19 are allowed over prior art of record.

5. The following is an examiner's statement of reasons for allowance:

Applicant's arguments filed 11/21/05 have been fully considered and are persuasive. The Examiner agrees with applicant's remark that the prior art does not teach or suggest the claimed limitation regarding the singulating a circuit die by performing a single, continuous cut around more than one side of the perimeter of said circuit die at a time.

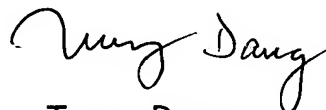
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trung Dang whose telephone number is 571-272-1857. The examiner can normally be reached on Mon-Friday 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Trung Dang  
Primary Examiner  
Art Unit 2823

02/03/06